

**REMARKS**

**Rejection of claims**

**(i) Anticipated**

- (a) Claims 11, 12 and 15: by Tomiuchi (GB 2357180)
- (b) Claims 11, 12 and 15: by Kawaguchi (US 2004/0051781)
- (c) Claims 1-3 and 6-16: by Bellmann (US 2003/0068525)
- (d) Claims 1, 2, 6 and 8-13, 15 and 16: by Kitano (US 2004/0109955)

**(ii) Obvious**

- (a) Claims 3, 7 and 14: Kitano (US 2004/0109955)

Claims 1-5 are cancelled. Claim 6 is amended to be independent. This avoids the obviousness rejection and the first two anticipation rejections. Claims 11-16 are cancelled. A new method claim 17 is added.

Claim 6 is directed to "an organic electroluminescent element". The light emitting material is made of a multi-branched structure compound which encapsulates an Ir phosphorescent compound. The core linkage group of the multi-

branched structure compound is selected from the group consisting of the structures of C-1 to C-21.

An important feature of the organic electroluminescent element of the present invention is the structure of the light emitting material in the light emitting layer as described above. As is now recited claim 6, the light emitting material contains a multi-branched structure compound encapsulating an Ir phosphorescent compound. As described on page 68, fourth paragraph, Ir is preferred whereby further improved light emission efficiency is obtained.

The Examiner takes the position that encapsulation can be done by simple mixing with other compound. But, this is not true. "Encapsulation" indicates to form a new molecule having a molecular weight of the components (A + B), here, A is an encapsulating compound; and B is a compound to be encapsulated by A. "Encapsulation" is not identical with a weak interaction of two molecules.

Although it is written that:

"the organic electroluminescent light emission layer is encapsulated in the multi-branched structure compound by mixing in a solvent" (page 72, lines 7-8),

this does not mean that encapsulation can be achieved by a simple mixing of A with B in a solvent. It simply identifies the type of encapsulation. Encapsulation can be achieved by specific methods, two examples of which are described at pages 72 to 73 of the present specification under the title of:

- (1) Encapsulation in a uniform solution; and
- (2) Encapsulation in a two phase system.

Both methods require specific conditions to realize encapsulation. These are not a simple mixing in a solvent and the explanation, which follows the above quoted portion in the specification, cannot be ignored.

The encapsulation of a multi-branched structure compound with a phosphorescent compound can be confirmed by the observation of the phosphorescent emission and by means of ICP mass spectroscopy. The detection of a new species having a

molecular weight of the sum of A and B is a confirmation of "Encapsulation". The observation of phosphorescence indicates that the encapsulated compound is a phosphorescent compound.

Rejections of Claims 11, 12 and 15 as being anticipated by Tomiuchi (GB 2357180) and by Kawaguchi (US 2004/0051781) are moot because Claims 11, 12 and 15 were canceled.

Bellmann (US 2003/0068525) does not describe all of the feature (i) to (iii) as recited in currently amended claim 6.

Remaining Claims 6-10 and 17 are not anticipated or obvious over Kitano (US 2004/0109955). Kitano does not show or suggest encapsulation as described above. Also as described above, simply mixing is not encapsulation and, therefore, encapsulation is not inherent in the Kitano disclosure.

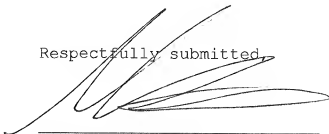
In Examples of both Bellmann and Kitano, there is no example in which an organic metal complex or an Ir complex is mixed with a multi-branched structure compound in a solvent. Both Bellmann and Kitano are silent concerning encapsulation methods such as

(1) and (2) as described above. Therefore, it is clear that neither Bellmann nor Kitano suggest encapsulation of a light emitting compound in a multi-branched structure compound as required in present claim 6.

Reconsideration is requested. Allowance is solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



MARSHALL J. CHICK  
Reg. No. 26,853

Holtz, Holtz, Goodman  
& Chick, P.C.  
220 Fifth Ave., 16th Floor  
New York, NY 10001-7708  
Tel. No. (212) 319-4900  
Fax No.: (212) 319-5101  
MJC/fs